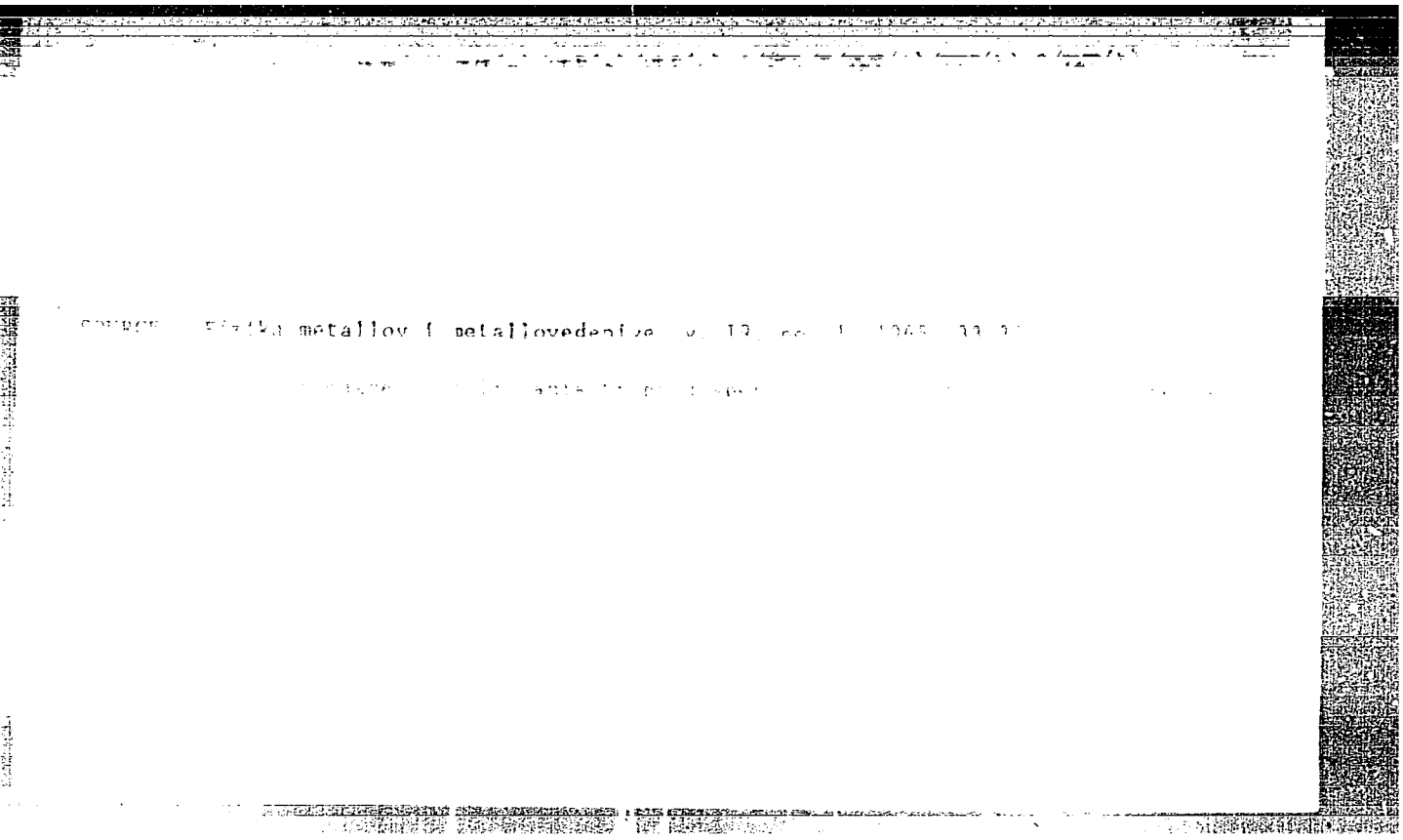
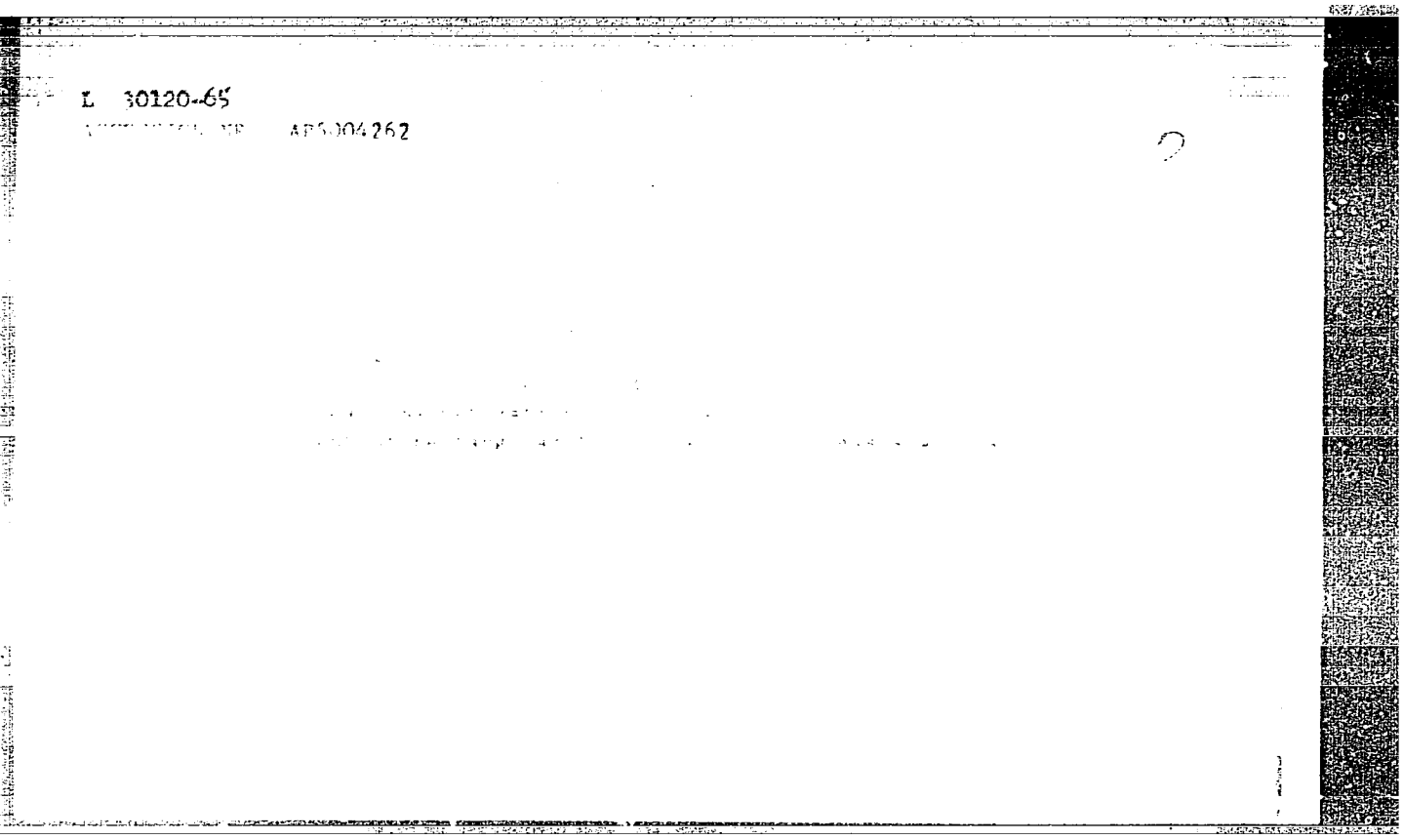
DZHIGIT, I., prof.

Steady business contacts are needed. NTO 2 no.1:12-13 Ja '60. (MIRA 13:5)

1. Zamestitel' predsedatelya Radiosoveta AN SSSR.
(Radio research)





DZHIDZHEV, I., inzh.

Influence of the eutectic cell on some properties of gray cast iron. Mashinostroene 13 no.10:30-33 O '64.

DZHIGIRIS, D.D.; KIRGIZBAYEV, I.B.

Durability of thermolime concretes manufactured from barchan sands with their partial activation. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.3:123-126 '64 (MIRA 18:1)

1. Institut seysmostoykogo stroitel'stva AN Turkmenskoy SSR.

[illegible], C.A., inzh.

Diagram for controlling derived stresses in the drum during the firing of a boiler. Izv.vys.ucheb.zav.; energ. 8 no.9:54-60 S '65. (MIRA 18:10)

1. Institut avtomatiki Gosudarstvennogo komiteta PSA i SU, predstavlena nauchno-tekhnicheskim Sovetom energeticheskogo otdela.

DZHIGIT, I. S.

PA 19T86

USSR/Radar
Radio - Rangefinders

Aug 1946

"Basic Radar Techniques," I. S. Dzhigit, 5 pp

"Vestnik Svyazi - Elektro Svyaz'" No 8 (77)

Well illustrated article which gives the Russian opinion on radio detection and ranging techniques as used by the US during the last war.

19T86

DZHIGIT, I.S.

"Modern Radar Systems" (Sovremennyye radiolokatsionyye sistemy). VNITO radiotekhniki i elektrosvyazi im. Popova, 80 pp., 1947 (vnutr.)

DZHIGIT, I. S.

Istoriia razvitiia i doztizheniia sovetskogo televideniia. [The history of the development and achievements of Soviet television]. (Radiotekhnika, 1947, no. 8, p. 39-43). CU MH NN RPB DLC: Slavic unclass.

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress, REference Department, Washington, 1952. Unclassified.

DZHIGIT, I.S.

DZHIGIT, I.S.

Radiolokatsiia; stenogramma publichnoi lektsii, prochitannoi v Moskve. Moskva, Pravda, 194o. 32 p. illus.
Bibliography: p. 31-32.
Title tr.: Radiolocation; stenographic record of a lecture delivered in Moscow.

TK6575.D9

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

DZHIGIT, I; PROF

PA 190T94

USSR/Radio - Electronics Jun 51
Prizes

"A. S. Popov Gold Medal Laureate (Academician A. I. Berg)," Prof I. Dzhigit

"Radio" No 6, pp 3, 4

Medal was awarded to Berg for outstanding scientific studies and inventions in radio. Reviews Berg's scientific work from 1924 up to now. Majority of these works were on the theory of vacuum tubes, particularly vacuum-tube oscillators. Berg is president of VNORIE (All-Union Sci

190T94

USSR/Radio - Electronics (Contd) Jun 51

and Tech Soc of Radio Eng and Elec Communications imeni Popov) and, in Mar 51, was elected chairman of the Council of Radio Phys and Radio Eng, Acad Sci USSR.

190T94

DZHIGIT, I.

May 53

USSR/Electronis - Broadcasting
Television
Transistors

"Tasks of Soviet Radio Engineering in the Light of the Resolutions of the 19th Party Congress," Professor I. Dzhigit, Vice-Chairman of the Radio Council, Akad Sci USSR

Radio, No 5, pp 4-6

Some of the tasks enumerated are: more research and development on USW broadcasting; higher production of stnd TV transmitting equipment for oblast centers developed by sci-res inst; mass production of large-screen TV receivers; work on radio relay lines; development of special magnetic materials so that magnetic amplifers can operate at higher frequencies; development of methods for producing semi-conductors with definite properties for use in semi-conducting diodes and triodes.

255T101

DZHIGIT, I.

"Problems of Soviet radio technology in the light of the resolutions of the 19th Congress of the Communist Party of the Soviet Union." p 1. "The United States appropriates the radio stations in Western Germany." p 1. "From the countries of people's democracy."p 1. (RADIO PREGLED, Vol. 8, #21, May 1953, Bulgaria)

SO: Monthly list of East European Accessions, Vol. 2, #8, Library of Congress, August, 1954, Uncl.

DZHIGIT, I.S.

Aksel' Ivanovich Berg, member of the Academy of Sciences; on his 60th birthday. Izv.AN SSSR Otd.tekh.nauk no.12:1870-1874 D '53. (MLRA 7:2)

(Berg, Aksel' Ivanovich, 1893-)

BORISOV, Viktor Gavrilovich; BERG, A.I.; DZHIGIT, I.S.; YELIN, O.G., KULIKOVSKIY, A.A.; MOZHZHEVELOV, B.N.; SMIRNOV, A.D.; TARASOV, F.I.; TRAMM, B.F.; CHECHIK, P.O.; SHAMSHUR, V.I.; MALININ, R.M. redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Young radio amateur] IUnyi radioliubitel'. Izd. 2-oe, ispr. i dop. Moskva, Gos.energ.izd-vo 1955. 271 p.(Massovaia radio-biblioteka, no.224) (MLRA 8:11)
(Radio--Amateurs' manuals)

DZHIGIT, I.S.

CHECHIK, Petr Oskarovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor TRAMM, B.F., redaktor; SHAMSHUR, V.I., redaktor; TARASOV, F.I., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[New sources of current for radio apparatus] Novye istochniki pitaniia radioapparatury. Moskva, Gos. energ. izd-vo, 1956. 39 p. (Massovaia radiobiblioteka, no.257) (MLRA 10:5)
(Radio--Apparatus and supplies) (Electric batteries)

GONCHARSKIY, Lush Abramovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; FROYMAN, A.I., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor

[Electron tubes with mechanical controls] Elektronnaia lampa s mekhanicheskim upravleniem. Moskva, Gos.energ. izd-vo 1956. 39 p. (Massovaia radiobiblioteka, no.243) (MIRA 9:8)
(Electron tubes)

DZHIGIT, I.S.

ZAGIK, Semen Yefimovich; KAPCHINSKIY, Lev, Mikhaylovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; OVCHARENKO, Ye. P., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Television reception antennas] Priemnye televizionnye antenny. Moskva, Gos. energ. izd-vo, 1956. 47 p. (MLRA 10:4)
(Television--Antennas)

DZHIGIT, I.S.

MIKHLIN, Berka Zys'yevich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SHIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; GINZBURG, Z.B., redaktor; CHERNOV, V.S., tekhnicheskiy redaktor

[Electronic instruments for production control] Radioelektronnye pribory dlia proizvodstvennogo kontrolia. Moskva, Gos. energ. izd-vo, 1956. 62 p. (Massovaia radiobiblioteka, no.258)
(Automatic control) (Electronic instruments)
(Production control)

DZHIGIT, I.S.

KUBARKIN, Leontiy Vladimirovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I. redaktor; GINZBURG, Z.B., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor

[Radio circuit primer] Azbuka radioskhem. Moskva, Gos. energ. izd-vo, 1956. 63 p. (Massovaia radiobiblioteka, no.259) (MLRA 10:5)
(Radio circuits)

SHUL'GIN, Konstantin Aleksandrovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; MEL'NIKOVSKAYA, R.D., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor.

[How a radio receiver works] Kak rabotaet radiopriemnik. Moskva, Gos. energ. izd-vo, 1956. 78 p. (Massovaia radiobiblioteka, no.242) (Radio--Receivers and reception)

DZHIGIT, I.S.

BERG,A.I., akademik, redaktor; DZHIGIT,I.S., professor, redaktor; KLYAUS,Ye.M., redaktor; POLYAKOVA,T.V., tekhnicheskiy redaktor

[Radio and electronics and their technical application] Radiotekhnika i elektronika i ikh tekhnicheskoe primenenie. Moskva, 1956. 127 p. (MIRA 9:3)

1. Akademiya nauk SSSR
(Radio) (Electronics)

DZHIGIT, I., professor.

Winner of the A.S.Popov gold medal. Radio no.7:12 Jl '56.
(MLRA 9:9)

(Pistol'kors, Aleksandr Aleksandrovich, 1896-)

DZHIGIT, I.S., professor.

Electronics of today and tomorrow. Nauka i zhizn' 23 no.11:29-32 N '56. (MLRA 9:11)
(Electronics) (Radar) (Radio in aeronautics)

DZHIGIT, I.S.

LEVANDOVSKIY, Boris Andreyevich; BERG, A.I., red.; DZHIGIT, I.S., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TARASOV, F.I., red.; TRAMM, B.F., red.; CHECHIK, P.O., red.; SHAMSHUR, V.I., red.; SOBOLEVSKIY, A.G., red.; CHERNOV, V.S., tekhn.red.

[Portable ultrashort wave radio station] Perenosnaia UKV radiostantsiia. Moskva, Gos.energ.izd-vo, 1957. 31 p. (Massovaia radiobiblioteka, no.278) (MIRA 10:11)
(Radio--Receivers and reception) (Radio--Transmitters and transmission)

DZHIGIT, I. S.

YAKOVLEV, Valeriy Vladimirovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; CHECHIK, P.O., redaktor, SHAMSHUR, V.I., redaktor; PLENKIN, Yu.N., redaktor; MEDVEDEV, L.M., tekhnicheskiy redaktor.

[Amateurs' receiving sets using transistors] Liubitel'skie priemniki na poluprovodnikovykh triodakh. Moskva, Gos.energ.izd-vo, 1957. 39 p. (Massovaia radiobiblioteka, no.275) (MIRA 10:11)
(Radio--Receiver and reception) (Transistors)

DZHIGIT, I.S.

TARASOV, F.I.; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D, redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; YENYUMIN, V.V., redaktor; MEDVEDEV, L.Ya., tekhnicheskiy redaktor

[Diagrams of low-frequency amplifiers for amateurs] Skhemy radioliubitel'skikh usilitelei nizkoi chastoty. Moskva, Gos. energ. izd-vo, 1957. 61 p. (Massovaia radiobiblioteka, no. 264) (MLRA 10:4)

(Amplifiers, Electron-tube)

DZHIGIT, I.S.

GRUDINSKAYA, Galina Petrovna; HERG, A.I., red.; DZHIGIT, I.S., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TARASOV, F.I., red.; CHECHIK, P.O., red.; SHAMSHUR, V.I., red.; LARIONOV, G.Ye., tekhn.red.

[Ultra-short radio wave propagation] Rasprostranenie ul'trakorotkikh radiovoln. Moskva, Gos.energ.izd-vo, 1957. 62 p. (Massovaia radio-biblioteka, no.281) (MIRA 10:12)
(Radio, Shortwave)

KAZARYAN, Rafael' Avetisovich; KUVSHINOV, Boris Ivanovich; NAZAROV, Mikhail Vasil'yevich, BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; KHARKEVICH, A.A., redaktor; MEDVEDEV, L. Ya., tekhnicheskiy redaktor

[Elements of the general theory of communications] Elementy obshchei teorii sviazi. Moskva, Gos. energ. izd-vo, 1957. 94 p. (Massovaia radiobiblioteka, no.263) (MLRA 10:4)
(Telecommonication)

DZHIGIT, I. S.

BROYDE, Abram Markovich, ; TARASOV, F.I., redaktor; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor. KULIKOVSKIY, A.A., redaktor; SMIRNOV, A.D., redaktor,; TRAMM, V.F., redaktor, ;CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor.

[Handbook on electron tube and semiconductor apparatus] Spravochnik po elektrovakuumnym i poluprovodnikovym priboram. Moskva, Gos.energ.izd-vo, 1957. 175 p. (Massovaia radiobiblioteka, no.269) (MLRA 10:5)
(Electronic apparatus and appliances)

DZHIGIT, I.S.

107-57-5-12/63

AUTHOR: Dzhigit, I., Professor, Deputy Chairman of the Radio Board, AS USSR

TITLE: Scientific Investigations in the Domain of Radio
(Nauchnyye issledovaniya v oblasti radio)

PERIODICAL: Radio, 1957, Nr 5, pp 10-11 (USSR)

ABSTRACT: A number of major investigations and the scientists engaged in them are listed. S.M. Rytov, Doctor of Physical and Mathematical Sciences, and E.M. Lifshits, Doctor of Physical and Mathematical Sciences, are trying to develop a correlation theory of electrical fluctuations and heat radiation at the Physical Institute of the AS USSR. Professor G.S. Gorelik and his group are working on fluctuations in self-oscillatory systems and on delayed-feedback oscillators at the Institute of Radio Engineering and Electronics of the AS USSR. At the same Institute serious studies of the theory and technique of antennas are being conducted under the guidance of A.A. Pistol'kors, Corresponding Member, AS USSR. The Institute of Semiconductors, the Physical Institute, the Physico-Technical Institute, and the Institute of Radio-Engineering and Electronics, AS USSR, conduct a series of studies of the theory and phenomena in semiconductors, try to design new semiconductor devices, to expand their frequency and temperature limitations, and to improve their reliability. In the domain of shf Professor L.A. Vaynshteyn is trying to work out a nonlinear theory of TW tubes, V.T. Ovcharov, Candidate of Technical Sciences, is working on focusing of an electron beam, and Z.S.

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Chernov is developing spiratrons with a centrifugal electrostatic focusing of electron beams. Extensive investigations and developments of particle accelerators have been conducted at the Radio-Engineering Laboratory, AS USSR, under the guidance of A.L. Mints, Corresponding Member, AS USSR. Variable-base radiointerferometers, 10, 20, and 50 cm, have been designed at the Crimean Base of the Physical Institute imeni P.N. Lebedev, AS USSR. A new type of radio telescope has been designed at the Glavnaya astrofiziches-kaya observatoriya (Main Astrophysical Observatory), Pulkovo, under the guidance of Professor Khaykin, S.E. The reflector of the radiotelescope consists of a number of individual mecanically independent $1\frac{1}{2}$ x 3 m plates. Electron inhomogeneities in the Earth atmosphere have been studied at FIAN under the guidance of V.V. Vitkevich, Candidate of Physical and Mathematical Sciences. Irregularities in vertical refraction of radio waves were discovered, and their relation with wavelength was found. Extensive studies of long-distance scatter tropospheric propagation have been conducted under the guidance of Academician B.A. Vvedenskiy and late Professor A.G. Arenberg. Further statistical studies in this field are being conducted by Professor G.S. Gorelik. A theory of ionospheric propagation of radio waves is being developed under the guidance of V.L. Ginzburg, Corresponding Member of the AS USSR.

AVAILABLE: Library of Congress

Card 2/2

DZHIGIT, I.S.

108-10-9/11

AUTHORS: Dzhigit, I.S., Zhabotinskiy, M.Ye., Ordinary Members of the Society

TITLE: Some New Branches of Radio-Electronics (Nekotoryye novyye razdely radioelektroniki)

PERIODICAL: Radiotekhnika, 1957, Vol. 12, Nr 10, pp. 85 - 93 (USSR)

ABSTRACT: The following branches have been newly developed and finally formed: radio navigation, radio-spectroscopy, radio-meteorology, radio-remote-control, radio-astronomy, radio-relay-connection and many others. Here the development of radio-astronomy and radio-spectroscopy is described shortly. At the borderlines of three sciences (astronomy, physics and radio engineering) radio-astronomy greatly extends the possibilities for the investigation of the universe by means of methods not accessible to optical astronomy. Two methods are used in radio-astronomy: the observation of the radio-radiation of the celestial bodies themselves, and the reception of the radio-waves transmitted from the earth and reflected from the objects observed. The following institutes in the USSR are concerned with the investigation of meteors: The Institute for Physics and Geophysics of the

Card 1/2

Some New Branches of Radio-Electronics

108-10-9/11

Turkmenian AN under the direction of I.S. Astapovich, the Astronomic Observatory in Kazan under the direction of K.V. Kostyrev, and the Observatory of Stalingrad (Tadzhikistan). The Institute for Physics of the AN USSR has two radio-telescopes with reflectors of 18 m x 8 m and two fixed parabolic mirrors of a diameter of 30 m on the Crimean peninsula. In the Armenian republic radio-telescopes with a surface of some thousand square meters are built in the Astrophysical Observatory in Byurakan for the observation of discreet sources of radio-radiation within the range of meter waves. In the astronomic main observatory of the USSR there is the greatest radio-telescope of the world for the range of centimeter waves. It is designed for the observation of the sun. A survey of the works of N.G. Basov and A.M. Prokhorov in the field of the generation and the amplification of radio waves is given. There are 15 Slavic references.

SUBMITTED: August 12, 1957

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova

AVAILABLE: Library of Congress

Card 2/2

ANDREYEV, Igor' Vasil'yevich, BERG, A.I., red.; BURLYAND, V.A., red.; VAKHTEV, V.I., red.; GENISHTA, Ye.N., red.; DZHIGIT, I.S., red.; KANAYEVA, A.M., red.; KRENKEL', E.T., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TABASOV, F.I., red.; CHECHIK, P.O., red.; SHAMSHUR, V.I., red.; GANZBURG, M.D., red.; MEDVEDEV, L.Ya., tekhn.red.

[Cabinet designs for radio receivers] Vneshnee oformlenie priemnika. Moskva, Gos. energ. izd-vo, 1958. 46 p. (MIRA 11:8)
(Radio--Receivers and reception)

DZHIGIT, I.S.

MEERSON, Anatoliy Meyerovich, BERG, A.I., red.; BURGLYAND, V.A., red.; VANEYEV, V.I., red.; GENISHTA, Ye.N., red.; DZHIGIT, I.S., red.; KANAYEVA, A.M., red.; KHEYNKEL', E.T., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TARASOV, F.I., red.; CHECHIK, P.O., red.[deceased] SHAMSHUR, V.I., red.; BORUNOV, N.I., tekhn.red.

[Testing radio tubes] Ispytanie radiolamp. Moskva, Gos. energ. izd-vo, 1958. 61 p. (Massovaia radiobiblioteka . no.303) (MIRA 11:9)
(Electron tubes--Testing)

DZHIGIT I.S.

KUGUSHEV, Aleksandr Mikhaylovich,; BERG, A.I., red.; BURDEYNYY, F.I., red.; BURLYAND, V.A., red.; VANEYEV, V.I., red.; GENISHTA, Ye.N., red.; DZHIGIT, I.S., red.; KANAYEVA, A.M., red.; KRENKEL', E.T., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TARASOV, F.I., red.; CHECHIK, P.O., red.; SHAMSHUR, V.I., red.; BORUNOV, N.I., tekhn. red.

[Modern radio electronics] Sovremennaia radioelektronika. Moskva, Gos. energ. izd-vo, 1958. 62 p. (Massovaia radiobiblioteka, no. 300). (MIRA 11:11)

(Electronics)

SOBOLEVSKIY, Anatoliy Georgiyevich,; BERG, A.I.,red.; BURLYAND, V.A., red.; VANEYEV, V.I., red.; GENISHTA, Ye.N., red.; DZHIGIT, I.S., red.; KANAYEVA, A.M., red.; KRENKEL', E.T., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TARASOV, F.I., red.; SHAMSHUR, V.I., red.; KRIBITSKIY, B.Kh., red.; LARIONOV, G.Ye., tekhn. red.

[Pulse techniques] Impul'snaia tekhnika. Moskva, Gos. energ. izd-vo, 1958. 167. (Massovaia radiobiblioteka, no. 308). (MIRA 11:11)
(Pulse techniques(Electronics))

ZHABOTINSKIY, Mark Yefremovich; RADUNSKAYA, Irina L'vovna; DZHIGIT, I.S., otv.red.; GESSEN, L.V., red.izd-va; POLENOVA, T.P., tekhn.red.

[Present-day radio] Radio nashikh dnei. Moskva, Izd-vo Akad. nauk SSSR, 1959. 262 p. (MIRA 12:6)
(Radio)

DZHIGIT, I.S., prof., red.; SOLOV'YEV, Ye.G., kand.tekhn.nauk, red.; AKKUSHIN, S., red.; LARIONOV, G.Ye., tekhn.red.

[Transactions of the Congress on Ultra-High Frequency Electronics] Trudy Konferentsii po elektronike SVCH. Pod red. I.S.Dzhigita i E.G.Solov'eva. Moskva, Gos.energ.izd-vo, 1959. 271 p. (MIRA 12:9)

1. Konferentsiya po elektronike SVCh, Moscow, 1957. (Electronics)

05910

9(3) SOV/107-59-7-13/42

AUTHOR: Dzhigit, I. S., Professor, Deputy Chairman

TITLE: Outstanding Scientists Are Laureates of the Gold Medal Imeni A.S. Popov

PERIODICAL: Radio, Nr 7 , Nr 7, p 14 (USSR)

ABSTRACT: In 1959, two Gold Medals imeni A.S. Popov were awarded by the Presidium Akademii nauk SSSR (Presidium of the USSR Academy of Sciences) to Doctor of Physical-Mathematical Sciences, Sergey Mikhaylovich Rytov and to the British scientist, Doctor Lewis Essen of the National Laboratory of Physics. Rytov received the award for his work in the field of statistical radiophysics, especially the theory of thermal fluctuations in distributed systems and the propagation of waves in mediums with statistically changing parameters. Rytov published more than 50 papers, among them "The Correlation Theory of Electrical Fluctuations and Thermal Radiation", "Thermal

Card 1/2

Outstanding Scientists Are Laureates of the Gold Medal Imeni A.S. Popov

Fluctuations in Distributed Systems", which are based on the monography "The Theory of Electrical Fluctuations and Thermal Radiation" (1953). Further, he wrote papers on "The Problem of Phase Fluctuation in a Tube Oscillator" and "The Spectrum of a Quasi-Linear Random Process". In connection with the achievements of L. Essen, who designed the atomic frequency standard using a beam of cesium atoms, the author mentions the work of N.G.Basov and A.M. Prokhorov who developed another method for such an atomic standard which is based on a maser.

ASSOCIATION: Radiosovet AN SSSR (Radio Council of the AS USSR)

Card 2/2

POPOV, Petr Aleksandrovich; BERG, A.I., red.; BURDEYNYY, F.I., red.; BURLYAND, V.A., red.; VANEYEV, V.I., red.; GENISHTA, Ye.N., red.; DZHIGIT, I.S., red.; KANAYEVA, A.M., red.; KREMKEL', E.T., red.; KULIKOVSKIY, A.A., red.; SMIRNOV, A.D., red.; TARASOV, F.I., red.; SHAMSHUR, V.I., red.; KULIKOVSKIY, A.A., red.; LARIONOV, G.Ye., tekhn. red.

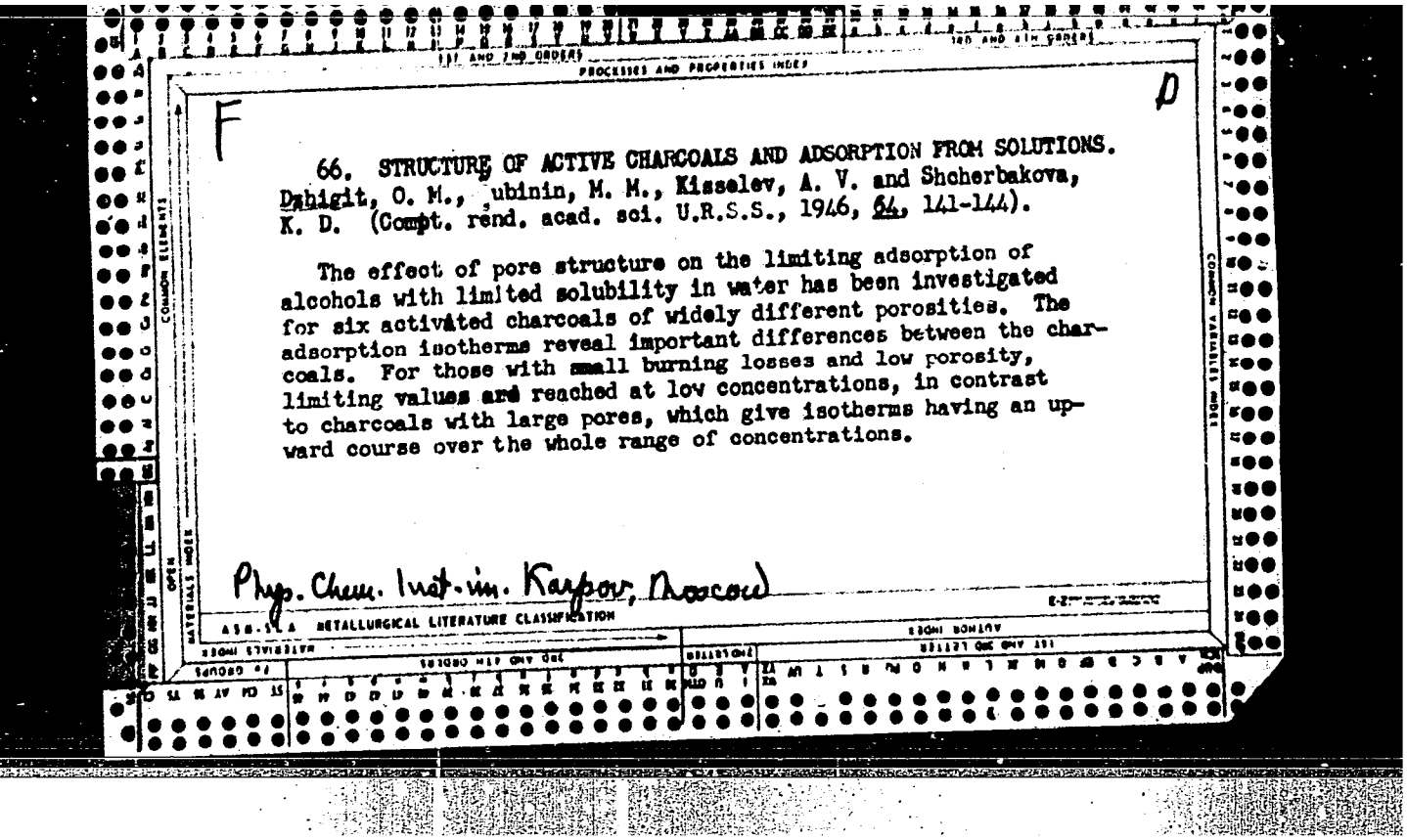
[Design of audio frequency transistor amplifiers] Raschet tranzistornykh usilitelei zvukovoi chastoty. Moskva, Gos. energ. izd-vo, 1960. 103 p. (Massovaya radiobiblioteka, no.378) (MIRA 14:5)

(Transistor amplifiers)

DZHIGIT, I.S. - 1902 - 1964

RADIOTEKHNIKA - 19 - No. 5: 80 - MY '64

DECEASED



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D

66. STRUCTURE OF ACTIVE CHARCOALS AND ADSORPTION FROM SOLUTIONS. Dubigit, O. M., ubinin, M. M., Kisselev, A. V. and Shcherbakova, K. D. (Compt. rend. acad. sci. U.R.S.S., 1946, 54, 141-144).

The effect of pore structure on the limiting adsorption of alcohols with limited solubility in water has been investigated for six activated charcoals of widely different porosities. The adsorption isotherms reveal important differences between the charcoals. For those with small burning losses and low porosity, limiting values are reached at low concentrations, in contrast to charcoals with large pores, which give isotherms having an upward course over the whole range of concentrations.

Phys. Chem. Inst.-im. Karpov, Moscow

DZHIGIT, O. M., FISMIEV, A. V. and MRASIL'NIKOV, N. G.

"Capillary," Dok. AN, 58, No. 3, 1947

DZHIGIT, O. M.

USSR/Chemistry - Adsorbents Jan 1948
Chemistry - Carbons, Active

"Adsorption Properties and the Structure of Adsorbents: II, Adsorption in Active Carbon Solutions of Widely Varying Concentrations," O. M. Dzhigit, A. V. Kiselev, M. G. Terekhova, K. D. Shcherbakova; Moscow State U; Lab of Adsorption, Acad Sci USSR; Inst of Phys Chem, Moscow, 11 pp

"Zhur Fiz Khim" Vol XXII, No 1, pp 107-20.

Study general types of adsorption isotherms of surface active substances found in solutions of weak adsorbent soluble materials. Adsorption of mixtures of

6578

USSR/Chemistry - Adsorbents (Contd) Jan 1948

water and acid or alcohols passes through maximum and decreases. Subdivision and cyclization of the adsorbant molecules decreases the degree to which they can fill the micropores of the carbon being studied.

Submitted 14 May 1947.

6578

DZHIGIT, O. M.

USSR/Chemistry- Silica, Colloidal
Chemistry- Absorption

May 1948

"Influence of the Conditions of Preparation on the structure of Silica Gel," G. K. Boreskov, M. S. Bosisova, O. M. Dzhigit, V. A. Dzis'ko, V. P. Dreving, A. V. Kiselev, O. A. Kikhacheva, Moscow State U imeni M. V. Lomonosov, Phys Chem Inst imeni L. Ya. Karpov, Moscow, 14 pp

"Zhur Fiz Khim" Vol XXII, No 5

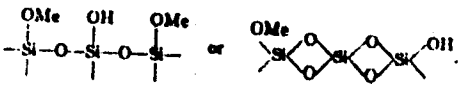
Samples of various types of silica gel (vitreous, chalky, etc.) obtained by different methods and their absorbent properties compared. Results are tabulated and shown graphically. Submitted 14 Aug 1947.

PA 68T24

CA

2

Poisoning and regeneration of the surface of silica gel in the adsorption of vapors. O. M. Dubigit, A. V. Kiselev, N. N. Mikos-Avgul, and K. D. Shcherbakova (Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 70, 441–4(1950).—Adsorption-desorption isotherms at 20° and differential heats Q in adsorption and desorption were detd. for MeOH vapor on a homogeneously finely porous silica gel, heated 12 hrs. at 450°, in the relative pressure range $p/p_s = 1.3 \times 10^{-4} - 1.0$, and back to 1.3×10^{-4} in desorption. Q in adsorption and desorption are identical only in the range of capillary condensation; further on, the desorption isotherm lies below the adsorption curve, corresponding to the greater amts. of heat absorbed in desorption as compared with those evolved in adsorption. To eliminate the last amts. of MeOH, pumping was done over active C, cooled in liquid N_2, with the gel heated to 65°; this left a residue of 0.5 millimole MeOH/g. gel still adsorbed. On repeated adsorption, after heating to 400°, the Q evolved in adsorption were smaller than in the 1st run, and the isotherm lay lower. A further lowering of Q and of the amt. adsorbed occurred in a 3rd run. This cannot be linked with any sintering of the gel which is still stable at 400°, but must be due to a poisoning by MeOH in the absence of H_2O, possibly through formation of superficial ethers of the type



A surface thus poisoned can be regenerated by treatment with H_2O vapor, which hydrolyzes the ethers; after that treatment, Q and the adsorption increase again, attaining values intermediate between those of the 1st and the 2nd series. Repetition of the hydrolytic regeneration operation restores the original Q and adsorption almost completely.

N. Thon

CH

2

Effect of the structure of the silica gel on the velocity of the sorption of calcium hydroxide from aqueous solutions. O. M. Dzhigit, A. V. Kiselev, and K. O. Krasil'nikov (Gosudarst. Vsesoyuz. Nauch.-Issledovatel. Inst. Tsement. Prom. and Moskov. Gosudarst. Univ. im. m.v. Lomonosova). *Doklady Akad. Nauk S.S.S.R.* 71, 77-9 (1950).—The amts. of $Ca(OH)_2$, in mg.-equiv./g., sorbed from a clear aq. soln. after a stated length of time (1 hr. to 30 days), are plotted against the concn. of the soln. after sorption. The isotherms are substantially different for a coarsely-porous silica gel (I), characterized by marked capillary condensation and considerable hysteresis in the sorption of C_6H_{12} vapor at 20°, and a finely-porous silica gel (II) showing no capillary condensation under the same conditions. Pore vol. distribution curves show, for II, a sharp peak at about 10 A., and in the range of 80-100 A. for I. Sorption of $Ca(OH)_2$ was detd. with fractions of I and II remaining after sifting with 10,000 mesh/sq. cm., and heated 4 hrs. at 350°. All points of the isotherms corresponding to the same initial concn. lie on the same straight line which connects the point on the axis of abscissas expressing the original concn. of the soln. with the point on the axis of ordinates corresponding to complete extn. of all $Ca(OH)_2$ from the soln. In the case of I, the 1-hr. isotherm shows irregularities of shape indicative of vol. sorption. Isotherms taken at later stages become increasingly straightened out; the 24-hr. isotherm is very nearly vertical, and, after 30 days, it corresponds to the equil. between the initial silica gel SiO_2.aq., the silicate $CaO.SiO_2$.aq., and the aq. soln. The coarse pores of I permit ready diffusion of $Ca(OH)_2$, and the Ca silicate formed does not prevent its access to the surface of yet unreacted SiO_2. This is not so in the case of II. All isotherms, including that taken after 30 days, show the familiar shape of initial rise and leveling off, and lie very closely one above the other. Sorption after 30 days is only a little greater than after 1 day.

N. Thon

DZHIGIT, O. M.

185T3

USSR/Chemistry - Adsorption 21 Feb 51

"Investigation of the Structure of an Adsorbent by Several Independent Methods," N.N. Avgul', O.M. Dzhigit, N.M. Kamakin, A.V. Kiselev, V. M. Luk'yanovich, I.Ye. Neymark, R. Yu. Sheynfayn, Moscow State U imeni M.V. Lomonosov, Inst Phys Chem, Acad Sci Ukranian SSR, Inst Phys Chem, Acad Sci USSR, Grozzyy Sci Res Petroleum Inst

"Dok Ak Nauk SSSR" Vol LXXVI, No 6, pp 855-858

Adsorption isotherms of benzene, heptane, and MeOH were taken on uniform roughly porous silica gel (structural type 2). Found surface of

185T3

USSR/Chemistry - Adsorption (Contd) 21 Feb 51

adsorbed film to be equal to surface of the adsorbent and not to depend on nature of vapor. Detd distribution of vol of pores by structure-adsorption method, method of pressing Hg into the pores, and electronic microscope method. Results obtained by the 3 methods checked.

185T3

CA

2

Absolute adsorption isotherms of vapors on quartz and on silica gels of different structures. N. N. Avgul, O. M. Dzhigit, V. P. Dreving, M. V. Gur'ev, A. V. Kiselev, and O. A. Likhacheva (Moscow State Univ.). *Doklady Akad. Nauk S.S.S.R.* 77, 77-80(1951).—Abs. adsorption isotherms, i.e. adsorption isotherms referred to unit surface area, were calcd. from previously obtained exptl. data for (I) finely ground cryst. quartz, (II) coarse-pore silica gel "*E*" (*C.A.* 45, 4906*f*), optimum pore diam. about 200 A., and (III) coarse-pore silica gel "*K*," prepd. by hydrolysis of $SiCl_4$ (*C.A.* 30, 6969[9]; 39, 3718[6]), optimum pore diam. 90 A. Sp. surface areas were detd., for I, by adsorption of N_2 at −195.7°, *s* (skeleton surface area) = 5.7 sq. m./g. by the Brunauer, Emmett, Teller method, 6.6 by the Harkins method, mean 6.2 sq. m./g.; for II, by adsorption of C_7H_{16}, C_6H_6, and MeOH vapors at 20°, *s'* (adsorption film at the beginning of hysteresis) = 320, 230, and 300, mean 320 sq. m./g.; III, by adsorption of N_2 at −195.7°, *s* = 440 (B.E.T.) and 430 (Harkins); by adsorption of C_7H_{16} at 20°, *s'* = 390, and by adsorption of H_2O vapor at 18.2°, *s'* = 410, mean 420 sq. m./g. Referred to unit surface area, adsorption isotherms of MeOH vapor coincide very exactly for I, II, and III, up to the beginning of the hysteresis loop (relative pressure p/p_s ~ 0.6). Not only unimol., but also multimol., adsorptions are analogous; on the silica gels, adsorption is followed by capillary condensation which begins at the lower film thickness on the finer III than on the coarser II. The data of Palmer (*C.A.* 32, 3664[6]) on adsorption of C_6H_6 vapor on quartz glass powder fit the same curve if his sp. surface areas, detd. from rates of soln. and evidently too low, are multiplied by a factor of 1.75. Multimol. adsorption results in films no thicker than 2-3 mols. even at p/p_s = 0.9; this contradicts assertions of allegedly very thick multimol. adsorption layers formed in the adsorption of vapors (Deryagin, *et al.*, *Doklady Akad. Nauk S.S.S.R.* 57, 697(1947)). In order to decide whether the constancy of the abs. adsorption, per unit surface area, applies also to highly fine-pore adsorbents, adsorption isotherms of vapors of N_2, MeOH, and C_7H_{16} were recalcd. for (IV) silica gel "*A*" (*C.A.* 43, 1628*d*), heated to 450°, and giving, with N_2 at −195.7°, a B.E.T. sp. surface area *s* = 390, Harkins 450, mean 420 sq. m./g. With the latter value, the adsorption isotherms of IV coincide with those of I and III for N_2, and with those of I, II, and III, for MeOH, but for C_7H_{16} the curves of IV and III diverge sharply. This indicates that the narrowness of the pores of IV plays no role in the adsorption of the small mols. of N_2 and MeOH, but does have a marked effect with the large mols. of C_7H_{16}. These findings provide a simple method for the detns. of the sp. surface of a silica gel. It is enough to det. the adsorption *a* of MeOH vapor at one p/p_s and to multiply it by the corresponding factor, e.g. 145 at p/p_s, if *a* is expressed in millimole./g.

N. Thon

Variation of the heat of adsorption of methyl alcohol vapor on quartz and silica gel with the surface coverage. N. N. Avgul, O. M. Dzhigit, A. A. Isirikyan, A. V. Kiselev, and K. D. Scherbakova (Moscow State Univ.). *Doklady Akad. Nauk S.S.S.R.* 77, 625-8(1951).—Differential heats of adsorption Q_s were detd. in a calorimeter with const. heat exchange, as a function of the amt. adsorbed a (micromole/g.), on ground quartz (I), a uniformly coarse-pore silica gel "K" (II), and a uniformly fine-pore silica gel "A" (III) (cf. *C.A.* 45, 5483g). The plots of Q_s as a function of a have the same appearance for the 3 samples, with Q_s first falling with increasing a, then leveling off, but the 3 plots do not coincide. If, however, Q_s is plotted as a function of a/s (micromole/sq.m.), where s = sp. surface area (known from previous detns.), all 3 samples fall on the same curve. Between a/s = 0.5 and 9.5 micromole/sq.m., it can be represented by $Q_s = Q_0 - C(a/s)$, with Q_0 = 16.2 kcal./mole, C = 6.6 × 10⁴ cal.sq.m./mole². The coverage a/s = 9.5 corresponds to the area occupied by 1 mol. of MeOH, ω = 18 sq. A., i.e. corresponds to closest packing of mols. of MeOH in a unimol. layer. From a/s = 9.5 up, Q_s becomes practically const., and only 7% in excess of the heat of condensation L of MeOH. After completion of the 2nd layer, at about a/s = 20 micromole/sq.m., Q_s becomes practically identical with L. The area comprised between the curve of Q_s and the horizontal line corresponding to L represents the heat of satn. with vapor of unit surface area of the adsorbent, and is = 180 ergs/sq. cm.; adding to it the surface energy of MeOH, 48 ergs/sq. cm., one gets 180 + 48 = 230 ergs/sq. cm., in agreement with the directly detd. heat of wetting (Kiselev et al., *Zhur. fiz. Khim.* 21, 1223(1947)). The equation of state given previously (*loc. cit.*), $\pi = kT(a/s) + \alpha(a/s)^2$, where π = surface pressure, α = interaction const., corresponds to Williams' isotherm equation $\log[(p/p_s)/a] = B + K\pi$, which fits the present data, as evidenced by the single straight line in the coördinates $\log[(p/p_s)/(a/s)]$, (a/s). The fall of Q_s with

USSR/Chemistry - Adsorption 21 Jul 51

"The Structure of Activated Carbons and Their Sorption Effect on Various Gaseous Substances," M. M. Avgul', O. M. Dzhigit, Acad M. M. Dubinin, A. V. Kiselev, Inst of Phys Chem, Acad Sci USSR, and Moscow State U imeni Lomonosov

"Dok Ak Nauk SSSR" Vol LXXIX, No 3, pp 451-455

Detailed study by the vacuum method was made of the adsorbed quantities, the isotherms of sorption and desorption of vapors of benzene, n-pentane, n-butanol, and methanol at 200 C and of water vapor at 25° C on 2 activated carbon samples which differed greatly in structure (monodisperse micropores as compared with large pores). The findings are shown in tables and graphs. It is hoped that a more rigid analysis of desorption curves will yield a more exact idea of the pore structure of activated carbon.

211T19

211T19

USSR/Chemistry - Adsorption

Jul 52

"Peculiarities of Adsorption of Different Vapors on Silica Gel," N. N. Avgul', O. M. Dzhigit, A. V. Kiselev, K. D. Shcherbakova, Moscow State U imeni M. V. Lomonosov; Inst Phys Chem Acad Sci USSR

Zhur Fiz Khim, Vol 26, No 7, pp 977-985

The isotherms of adsorption of n-heptane, methyl alcohol and water vapor on coarsely porous pure silica gel were studied. All these isotherms have a reproducible hysteresis under high vapor pressures and, in the case of the adsorption of vapors

of polar substances, a nonreproducible hysteresis when the vapor tension is low. The reproducible sorption hysteresis at comparatively high pressures is solely dependent on the capillary condensation of the vapors in the silica gel pores and is independent of the nature of the vapor. The nonreproducible hysteresis at comparatively low pressures, noted in the adsorption of methyl alcohol and water vapors, occurs when there is partial chemosorption. During the adsorption of heptane vapors there is no such hysteresis; because the adsorption is purely physical. The isotherms obtained for primary adsorption correspond in all instances essentially to physical adsorption.

248T9

PA 248T9

USSR/Chemistry - Adsorption

Jul 52

"The Dependence of the Heat of Wetting of Silica Gel by Water on the Degree of Filling of Its Surface," A. V. Kiselev, K. G. Krasil'nikov, N. L. Pokrovskiy, N. N. Avgul', O. M. Dzhigit and K. D. Shcherbakova, Moscow State U imeni M. V. Lomonosov.

Zhur Fiz Khim, Vol 26, No 7, pp 986-997

This work has both theoretical and practical value. The dependence of the heat of wetting of silica gel by water, on the quantity of previously adsorbed water, was measured on a homogeneous, coarsely porous silica gel made from $SiCl_4$ and having a known specific surface. Results of the measurements established the abs dependence of the heat of wetting by water and the differential heat of adsorption of the water vapor on amount of water adsorbed per unit of surface. The differential heat of adsorption of water vapor decreases in proportion to the increase in the degree of filling of the surface.

PA 248T10

DZHIGIT, O.M.

PA 234T17

USSR/Chemistry - Adsorption 1 Sep 52

Adsorption of Vapors on Nonporous Activated Carbon, Particularly Carbon Black," N. N. Avgul', O. M. Dzhigit, A. V. Kiselev, Moscow State U imeni M. V. Lomonosov and Inst of Phys Chem, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol 85, No 1, pp 95-98

Adsorption isotherms of water, methyl alc, and benzene on carbon black are constructed for 0 to 1 p/p_s. Each isotherm is characteristically different from the others. The specific characteristics and differences are described. The purpose of the investigation was to investigate the adsorptive properties of the carbon surface itself and to eliminate the effect of pores, which is prominent in ordinary gas-mask carbon. Presented by Acad M. M. Dubinin 27 Jun 52.

234T17

Dzhigit, O. M.

62 Capillary condensation of vapors and pore structure of active carbons. N. N. Avgul, O. M. Dzhigit, and A. V. Kiselev (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 89, 97–9(1953).—In order to clarify the problem of capillary condensation, the adsorption of vapors was studied on active carbons with coarse-pore structure as well as on nonporous active C (carbon black). The adsorption of H_2O, EtOH, C_4H_9OH, C_6H_6, and C_6H_{12} was studied. All of the isotherms are characterized by hysteresis due to capillary condensation. The adsorption of H_2O on nonporous C indicates that the vapor is adsorbed as a unimol. layer in which the mols. are bound by H bonds.

J. Rovtar Leach

(2)

Determination of the adsorption isotherm and the differential heat of adsorption of water on carbon black. N. N. Avgul, O. M. Dzhigit, A. V. Kiselev, and K. D. Shcherbakova (M.V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 92, 105–8(1953); cf. *C.A.* 49, 15369h.—Carbon black (C 97.9, H 0.7%, O 1.4%) was evacuated to a pressure of 5×10^{-6} mm. at 260°, and the adsorption and desorption isotherms and heats of adsorption were detd. at 12°. The adsorption and desorption isotherms did not coincide and were characterized by two points of inflection at $p/p_s \leq 0.5$, $a \geq 1.1$ millimol./g. and $p/p_s = 0.84$, $a = 1.97$ millimol./g., resp. (p/p_s is the relative pressure, a is the quantity adsorbed per g. of C black). Values of adsorption were also calcd. in terms of $a = a/s$, where $s = 125$ sq. mm./g. The noncoincidence of adsorption and desorption isotherms was attributed to a slow process of swelling. Calorimetric detn. of the differential heat of adsorption Q_a (cf. Kiselev, *et al.*, *C.A.* 43, 6871d) gave values of $Q_a = 10.75$ kcal./mol. ($a < 1.97$ millimol./g.) and $Q_a = 10.55$ kcal./mol. ($a > 1.97$ millimol./g.). The latter value is identical with the heat of condensation $L = 10.6$ kcal./mole. The quantity $a = 1.97$ millimol./g. corresponds to a mean area of 10.5 sq. A. for a H_2O mol. in a unimol. layer (the calcd. value is 10.6 sq. A.). The adsorption capacity of C-black samples decreased with increasing ignition temp. during evacuation prior to adsorption expts. The surface interaction of H_2O with C black appears to be due to H-bond formation with oxides or hydroxides contained in the surfaces investigated. I. P.

DZHIGIT, O.M.

Isotherm and heat of adsorption of methanol on carbon black. M. M. Avgul, O. M. Dzhigit, A. V. Kiselev and K. D. Shcherbakova [illegible] 1957 [illegible]

[illegible] MeOH [illegible]

[illegible] abrupt thermal changes. The [illegible]

[illegible] and in the layers with heat of adsorption [illegible] MeOH [illegible]

Dzhigit, O.M.

USSR/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 14/25

Authors : Dzhigit, O. M.; Kiselev, A. V.; Neymark, I. E.

Title : Standard series of silica gels and their structure

Periodical : Zhur. fiz. khim. 28/10, 1804-1811, Oct 1954

Abstract : Various standard silica gel samples were investigated to determine the effect of pore narrowing on the absolute adsorption properties of $SiO_2 \cdot nH_2O$ type adsorbents (from nonporous quartz to the finest porous silica gels). It was found that the change in the form of absolute isotherms, which takes place during reduction of pore dimensions and increase in molar volume of the adsorbed substance, is due to the intensification of the adsorption bond which is usually attributed to the dispersion forces having additive characteristics. The connection between the pore structure and the skeletal structure of silica gels was investigated and the results obtained are described. Forty-one references: 36-USSR; 2-USA; 2-German and 1-French (1932-1954). Table; graphs.

Institution : Acad. of Sc. Ukr-SSR, The L. V. Pisarzhevskiy Institute of Physical Chemistry and the M. V. Lomonosov State University, Moscow

Submitted : February 28, 1954

Capillary condensation of various vapors on a ... porous silica gel. N. N. Avg... M. ... Kiselev (M. ... Lomonosov ...). *Fiz. Khim.* ... Silica gel the ... [illegible] ... tion ... γ ... the surface tension, ... the differential work of adsorption, and a the amt. adsorbed, the integration being performed in the hysteresis range. The ... varied between 275 sq. m./g. for H_2O and 315 for isopentane (both at 20°), in agreement with the area (315 sq. m./g.) of the solid adsorbent calcd. from the adsorption of N_2 at low gas pressures. The frequency distribution of pore diams. was calcd. from the adsorption isotherms by Kelvin's equation. The most frequent diam. d corrected for the thickness of the adsorbed layer ... between 170 A. for benzene and 238 A. for MeOH, in accord with the above d. The ratio ... s' should be nearly identical with d; it was 215 A. Thus gel dimensions derived from the theory of capillary condensation agree with those found by independent methods. The above ... also to the gel of Bartell and ... 45 ... The calcn. ... and Bartell ... 45 ... was not new (cf. Kiselev, *C.A.* 43, 3030...) ... exact than the above method.

J. J. Bikerman

ДЖИГИТ, О.М.

USSR/ Chemistry - Physical chemistry

Card 1/2 Pub. 22 - 24/51

Authors : Avgul', N. N.; Dzhigit, O. M.; Kiselev, A. V.; and Shcherbakova, K. D.

Title : The isotherm and the heat of adsorption of water vapors over carbon

Periodical : Dok. AN SSSR 101/2, 285-288, Mar 11, 1955

Abstract : The isotherm and the heat of water vapor adsorption were investigated for a finely porous sugar carbon activated in a CO_2 stream at 1000°. Results indicate that the monomolecular water adsorption on the oxidized surface is followed by capillary condensation in the pores.

Institution : Acad. of Sc. USSR, Inst. of Phys. Chem. and the M. V. Lomonosov State Univ. Moscow.

Presented by: Academician M. M. Dubinin, October 5, 1954

Periodical : Dok. AN SSSR 101/2, 285-288, Mar 11, 1955

Card 2/2 Pub. 22 - 24/51

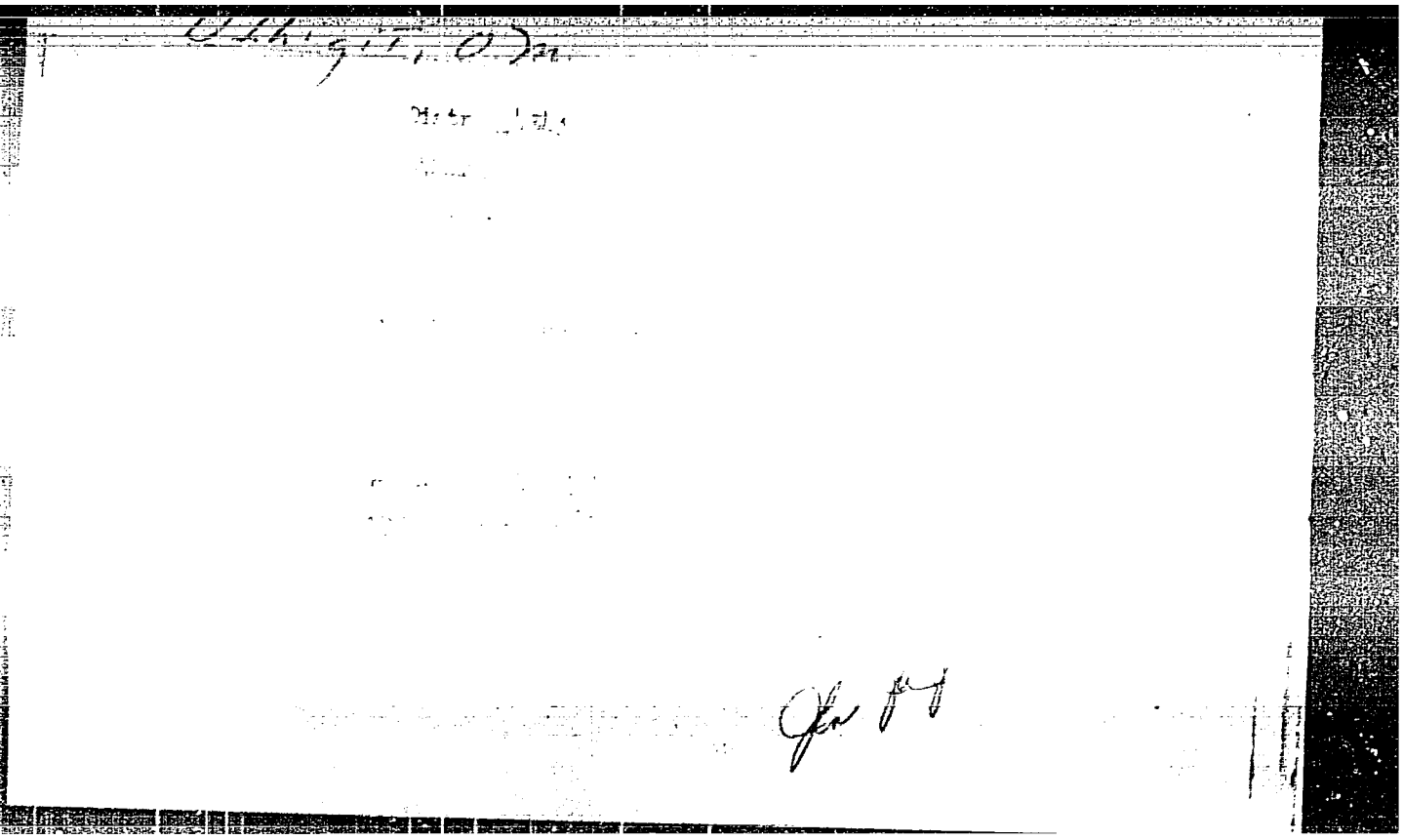
Abstract : The pore structure of the carbon was found to have a specific effect on the water vapor adsorption. The monomolecular adsorption and the capillary water vapor condensation apparently superimpose on each other because of the small pore dimension of this carbon. Thirteen references: 7 USSR and 6 USA (1927-1954). Graphs.

DZHIGIT, O. M. Cand Chem Sci -- (diss) "Effect of the chemical nature and porosity of silicon dioxides and graphitized substances on adsorption of vapors." Mos, 1957 12 pp 22 cm. (Mos State Univ im M. V. Lomonosov), 100 copies (KL, 15-57, 106)

DZHIGIT, O. M.

KISELEV , A.V.,professor, redaktor; DZHIGIT, O.M.,redaktor; MEZ'YER, V.V., tekhnicheskiy redaktor

[Surface chemical compounds and their role in adsorption; a collection of papers didicated to the 200th anniversary of the Moscow State University, 1755-1955] Poverkhnostnye khimicheskie soedineniia i ikh rol' v iavleniiakh adsorbtsii; sbornik trudov konferentsii po adsorbtsii, posviashchennoi 200-letiiu Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova, 1755-1955. Moskva, Izd-vo Mosk. univ., 1957. 367 p. (MLRA 10:5)
(Surface chemistry) (Adsorption)



DZHIGIT, O.M.; KISELEV, A.V.; MUTTIK, G.G.

Heats of adsorption of p-diethyl ether on silica gel [with summary in English]. Koll.zhur. 23 no.4:504-505 Jl-Ag '61. (MIRA 14:8)

1. Moskovskiy universitet im. M.V. Lomonosova.
(Esther) (Heat of adsorption)

DZHIGIT, O.M.; KISELEV, A.V.; MUTTIK, G.G.

Heat of adsorption of water vapor on silica gel with hydrated and dehydrated surfaces. Koll.zhur. 23 no.5:553-562 S-O '61. (MIRA 14:9)

1. Moskovskiy universitet, Khimicheskiy fakul'tet, Laboratoriya adsorbtsii.

(Water vapor) (Silica) (Heat of adsorption)

DZHIGIT, O.M.; ZHDANOV, S.P.; KISELEV, A.V.; MUTTIK, G.G.

Differential heats of adsorption of n-pentane and diethyl ether by porous crystals of zeolite of type 5A. Zhur. fiz. khim. 36 no.4:919-920 Ap '62. (MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet i Institut khimii silikatov AN SSSR.
(Heat of adsorption) (Pentane) (Ethyl ether)
(Zeolite crystals)

S/069/63/025/001/001/008
B101/B186

AUTHORS: Dzhigit, O. M., Kiselev, A. V., Muttik, G. G.

TITLE: Nature of adsorption by zeolites. Differential heat of adsorption of diethyl ether vapor and n-pentane vapor on porous crystals .

PERIODICAL: Kolloidnyy zhurnal, v. 25, no. 1, 1963, 34-42

TEXT: The adsorption properties of molecules having similar geometric but different electronic structures were studied. For this purpose diethyl ether and n-pentane adsorbed on porous zeolite crystals of type 13X ($0.97Na_2O \cdot Al_2O_3 \cdot 2.96SiO_2$) and 10X ($0.31Na_2O \cdot 0.66CaO \cdot Al_2O_3 \cdot 2.95SiO_2$) were used. The results were compared with those obtained earlier (Zh. fiz. khimii, 36, 919, 1962) for zeolite 5A which also contained Ca^{2+} ions. Its channelways, however, were narrower than those of 10X. Results: In 13X, the adsorption heat Q_{aE} of ether was approximately 80% higher than Q_{aP} of pentane. Q_{aE} was almost constant as the amount a (mmoles/g) of adsorbed

Card 1/3

Nature of adsorption by ...

substance increased, and always larger than Q_{aP} owing to electrostatic interaction between ether dipoles and Na^+ ions of zeolite. Q_{aP} increased with a and passed a maximum owing to interaction among pentane molecules which were more densely packed on the zeolite surface. The curve Q_a versus a of 10X first dropped for ether as well as pentane owing to inhomogeneities of the electrostatic field formed by Ca^{2+} and Na^+ ions. In contrast to Q_{aE}, Q_{aP} increased with a, but less intensively than in 13X. Q_a (kcal/mole) is given for the degrees of population $\theta = 0.1$ and 0.5 for ether on 5A: 25.6, and 22.0; on 10X: 22.3 and 20.2; on 13X: 21.1 and 21.0; for pentane on 5A: 14.2, and 15.6; on 10X: 13.5 and 13.0; on 13X: 12.2 and 14.0. Adsorption on zeolites with high adsorption energy affects the molecular packing of the adsorbates. Thus, the ratio a_E/a_P of the concentrations of adsorbed ether and pentane at $p/p_s = 0.5$, is 1.12 in 5A, 1.18 in 10X, and 1.19 in 13X, whereas c_E/c_P of the liquids is only 1.11. There are 4 figures and 1 table. The most important English-language references are: R. M. Barrer, S. Wasilewski, Trans. Faraday Soc., 57,

DZHIGIT, O.M.; KISELEV, A.V.; MIKOS, K.N.; MUTTIK, G.G.

Heat of adsorption of water vapors on zeolite of the Na-faujasite type. Zhur. fiz. khim. 38 no.7:1791-1796 Jl '64.

(MIRA 18:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

DZHIGIT, O.V. [Dzhyhit, O.V.]

From the work practices of Kharkov pharmacies. Farmatsev. zhur. 17 no. 3:65-69 '62. (MIRA 17:10)

1. Kontrol'no-analiticheskaya laboratoriya aptechnogo upravleniya Khar'kovskogo oblastnogo otdela zdravookhraneniya.

USSR/Human and Animal Morphology - Normal and Pathological. S
Skeleton. Supporting Connective Tissue

Abs Jour : Ref Zhur Biol., No 11, 1958, 50343

Author : Dzhigora, S.T.
Inst :
Title : Significance of Morphological Structure of the Haversian Canals and Spongiosa in Determination of the Species of the Bones.

Orig Pub : Vrachebn. delo, 1957, No 1, 49-52

Abstract : The structure of haversian canals and dentate substance of the femoral, tibial, fibular and certain flat bones was studied. The average number of Haversian canals per 1 square mm in the femoral bone in man is 7-20, in swine 77, in cattle 38. The smaller the number of canals, the greater their size. In man they are larger than in animals (diameter of round ones is 21-174 μ and that of oval ones 16-200 μ). Morphology of the Haversian

Card 1/2

USSR/Human and Animal Morphology - Normal and Pathological. S
Skeleton. Supporting Connective Tissue

Abs Jour : Ref Zhur Biol., No 11, 1958, 50343

canals in fresh and skeletized cadavers is almost identical: in skeletized ones the system of bone lamellae is more markedly expressed, and the cellular elements are absent. In man, osseous stems are larger but the spacing between them is smaller than in animals. --
I.B. Barabash

Card 2/2

DZHIGORA, S.T.

Height determination in the examination of skeletons. Vrach.delo no.8:843-845 Ag '57. (MLRA 10:8)

1. Kafedra sudebnoy meditsiny (zav. - prof. Yu.S.Sapozhnikov) Kiyevskogo meditsinskogo instituta
(SKELETON) (MEDICAL JURISPRUDENCE) (ANTHROPOMETRY)

DZHIGORA, S. T.

Cand Med Sci - (diss) "Problems of legal medical expertise of skeletized corpses." Khar'kov, 1961. 17 pp; (Khar'kov State Med Inst); 300 copies; price not given; (KL, 10-61 sup, 224)

DZHIGORA, S.T.

Sexual dimorphism of the clavicles. Sud.-med. ekspert. 5 no.1: 16-19 Ja-Mr '62. (MIRA 15:4)

1. Kafedra sudebnoy meditsiny (zav. - prof. Yu.S.Sapozhnikov) Kiyevskogo meditsinskogo instituta.
(DIMORPHISM) (CLAVICLES)

GURIYEV, A.Ye.; TSALIKOVA, M.B.; DZHIKAYEV, Kh.F.

Mechanism of magnetite formation in the sintering of lead charges. Izv. vys. ucheb. zav.; tsvet. met. 4 no.5:90-96 '61. (MIRA 14:10)

1. Severokavkazskiy gornometallurgicheskiy institut, kafedra metallurgii tyazhelykh tsvetnykh metallov.
(Lead--Metallurgy) (Magnetite)

DZHIKAYEVA, G.A.

Experimental investigation of Orkhevi gaiza [in Georgian with summary in Russian]. Trudy Inst. stroi. dela AN Gruz. SSR 3: 235-240 '51. (MLRA 9:10)

(Georgia--Volcanic ash, tuff, etc.)

DZHIKAYEVA, G.A.; BAKHTADZE, I.D.

Experimental study of the physico-mechanical properties of gaize and gaize mortars. Trudy Inst. stroi. dela AN Gruz. SSR 4:231-237 '53. (MLRA 9:10)

(Glauconite) (Building materials)

DZHIKAYEVA, G.A.

Some problems of the strength of coarse porous concrete [in Georgian with summary in Russian]. Trudy Inst.stroi.dela AN Gruz.SSR 5: 185-191 '55. (MLRA 9:8)

(Concrete)

DZHIKAYEVA, G.A.; AYZENBERG, A.A.

Building microporite based on loesslike clayey soils from Georgia. Trudy nauch.korr.Inst.stroi.dela AN Gruz.SSR no.1:19-21 '56. (MIRA 13:5)

(Ukraine--Building materials)

DZHIKAYEVA, G.A.

Using lightweight aggregates in making coarse porous concretes.
Trudy Inst. stroi. dela AN Gruz. SSR 6:167-179 '57. (MIRA 11:8)
(Lightweight concrete)

DZHIKAYEVA, G.A., starshiy nauchnyy sotrudnik

Temporary instructions on making and using coarse porous concretes made with lightweight aggregates; supplement. Trudy Inst. stroi. dela AN Gruz. SSR 6:180-183 '57. (MIRA 11:8)
(Lightweight concrete)

DZHIKAYEVA, G.A.

Experimental investigation of the adhesion of mortars to pumice concrete blocks. Trudy Inst.stroi.dela AN Gruz.SSR 7:189-197 '59. (MIRA 13:5)
(Motar) (Building blocks)

DZHIKAYEVA, G.A.

Some problems of the adhesion of mortar to large pumice concrete blocks. Trudy Inst.stroi.dela AN Gruz.SSR 8:97-106 '60. (MIRA 14:10)

(Adhesion) (Mortar) (Concrete blocks)

DZHIKAYEVA, G.A.; ABUYEVA, Z.A.

Aglokeramzit in local sands. Trudy Inst. stroi.mekh. i seism. AN Gruz. SSR 9:167-174 '63. (MIRA 17:12)

DZHIKAYEVA, M.A.

USSR/Soil Science. Genesis and Geography of Soils. I-2

Abs Jour: Referat Zh-Biol., No 6, 25 March, 1957, 22439

Author : Dzhikayeva, M.A.
Inst :
Title : The Composition of the Brown Forest Soils of Borzhom Ravine in Connection with Forest Composition.

Orig Pub: Soobshch. GruzSSR, 1956, 17, No 1, 45-51.

Abstract: The brown forest soils of the Borzhom ravine are distinguished by great variety, which is due to the forest composition and the accumulation in the soil of organic matter, the degree of its decomposition, the development of sodding and podzolization. In brown soils of pine and fir forests, the absorption capacity reaches 61-67 meqv with a predominant absorption of calcium, by 70-80%. In soils covered by beech forests, the quantity of absorbed bases is 28-49 meqv and there is a large percentage of absorbed hydrogen. The content of organic matter in pine forest litter

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Abs Jour: Referat Zh-Biol., No 6, 25 March, 1957, 22439

is 18.76-44.13%, and in fir forest litter is 45.91-33.84% [sic!]. The humus content in beech forests soils is 14.7%, and in pine forest soils 10.78%. Significant differences are noted in the ratio of C/N in soils of coniferous and beech forests. The highest humus solubility is noted in beech forest soils by comparison with fir and especially pine forests. In the pine forest litters and in the layer of 3-16 cm, there are 1½ times less humic acids than fulvic (?) acids. In the fir forest soils, the fulvic acids are thrice greater than the humic acids, and in the layer of 17-25 cm, the humic acids and fulvic acids are in almost equal proportions. In fir forest podzol soils, in the litter, the proportion of humic to fulvic acid is 0.48, but in the layer of 12-22 cm, this proportion is markedly changed in favor of fulvic acids. A large content of fulvic acids is found in brown forest soil.

DZHIKIDZE, E. K.

USSR/Medicine - Dysentery Dec 53

"Experimental Investigation of the Combined Method of Immunotherapy and Chemotherapy for the Treatment of Dysentery, " V. L. Troitskiy, M. A. Tumanyan, E. K. Dzhikidze, Inst of Epidemiol and Microbiol im N. F. Gamaleya, Acad Med Sci USSR; Sukhumi Med-Biol Sta, Acad Med Sci USSR

Zhur Mikro Epid i Immun, No 12, pp 37-43

Expts described show that application of active immunization and of chemotherapy with two antibiotics, one of which (levomycetin and/or synthomycin) penetrates easily into the blood from the intestine, while the other (streptomycin or grizemin) stays in the intestine, is the most effective method of treating monkeys which carry Flexner bacilli or monkeys artificially infected with Sonne bacilli. Macacus rhesus monkeys were used in the expts. They were immunized with Chernokhovostov's alcohol vaccine or the new "dysentery immunogen" (a polysacharide-protein complex from dysentery bacilli bouillon cultures, to be used parenterally or enterally(. The results obtained on animals warrant investigation of the method on humans.

DZHIDZE, E. K.

"Dysentery Bacilli Carrying in Monkeys." Cand Med Sci, Acad Med Sci USSR, 23 Dec 54. (VM, 10 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556 24 Jun 55

DZHIKIDZE, [redacted].K.

Bacteriophage therapy of monkeys carrying dysentery microbes. Zhur. mikrobiol. epid. i immun. no.6:66 Je '54. (MLRA 7:7)

1. Iz Sukhumskoy mediko-biologicheskoy stantsii Akademii meditsinskikh nauk SSSR

(BACTERIOPHAGE) (MONKEYS--DISEASES)
(SHIGELLA PARADYSENTERIAE)

DZHIKIDZE, E. K.

USSR/Biology - Physiology FD-2257

Card 1/1 Pub 17-8/20

Author : Miminoshvili, D. I.; Dzhikidze, E. K.

Title : On the significance of a disturbance of higher nervous activity in the contraction of dysentery

Periodical : Byul. eksp. biol. i med. 3, 29-33, Mar 1955

Abstract : Investigated the relationship between a disturbance (in this case, neurosis) in higher nervous activity and the contraction of dysentery in monkeys given dysentery bacteria orally. Microsection. No references.

Institution: Laboratory of Physiology and Pathology of Higher Nervous Activity and the Laboratory of Infectious Pathology of the Sukhumskaya Medico-Biological Station (Director - I. A. Utkin, Kand, Biological Sciences), Academy of Medical Sciences USSR

Submitted : May 20, 1954 by V. N. Chernigovskiy, Member of the Academy of Medical Sciences USSR

DZHIKIDZE, E. K., GEKKER, V. D, and GAVRILOVA, Yu. A.

"The Role of Nutrition in the Pathogenesis of Dysentery" Proceedings of Inst. Epidem and Microbiol im. Gamaleya 1954-56

Interinstitute Scientific Conference on Problems of Dysentery [The following are identifications of personnel associated with the Institute of Epidemiology and Microbiology imeni N. F. Gamaleya who attended the conference held in Molotov, 4-7 April 1956] Inst. Epidem and Microbiol im. Gamaleya AMS USSR.

SO: Sum 1186, 11 Jan 57.

DZHIKIDZE, E.K.

EXCERPTA MEDICA Sec 4 Vol. 10/9 Microbiology Sept 57

2115. TUMANYAN M. A., DZHIKIDZE F. K., and AKSENOVA A. S. N. F. Gamalei Inst. of Epidemiol. and Microbiol., Acad. of Med. Sci. of the USSR, Moscow and the Sukhum Medico-biol. Station. * The effectiveness of prophylactic vaccination against dysentery in experiments on monkeys Z. MIKROBIOL. 1956, No. 9 (81-86) Tables 2 (Russian text)

Several groups of Macaca rhesus monkeys (21 monkeys in all) were immunized against dysentery in various ways (1) tablets by mouth, three times; (2) formalized vaccine subcutaneously, three times; (3) 'Immunogen' by mouth, six times ('Immunogen' is an antigenic polysaccharide-protein complex, extracted from bacterial bodies); (4) a living culture of Sonne subcutaneously, once; (5) parenteral-enteral (formalized vaccine subcutaneously once and oral 'Immunogen' three times). Two months after vaccination all the experimental monkeys together with controls were infected by mouth with a living culture of Sonne dysentery bacilli (S-form, 90 thousand million organisms). Repeated examination of the faeces of the monkeys before infection had shown that none were carriers. After infection the faeces were cultured daily and rectoscopy done weekly. Clinical data were also taken into consideration. Observations showed that 24-48 hr. after infection all the immunized and unimmunized monkeys sickened with dysentery but the clinical picture was more obvious in the control animals. The severity of the course of the illness and its duration were approximately the same in all the groups of immunized monkeys. After infection, excretion of B. sonnei was observed in all the monkeys. In the majority of immunized monkeys excretion of B. sonnei continued for 2-3 days; unimmunized monkeys excreted the bacilli during the whole course of the observations (3 weeks). Rectoscopy showed that even in the absence of bacterial excretion in immunized monkeys, there were changes characteristic of dysentery in the large intestine. Hence, vaccination of monkeys, although it does not protect them from dysenteric infection, renders the course of the illness less severe and significantly shortens the period during which bacteria are excreted.

Kaulen - Moscow

2116. DZHIKIDZE E. K. Medico-biol. Stat., Acad. of Med. Sci. of the USSR, Sukhumi.
* The dysentery carrier-state in monkeys (Russian text)
Ž. MIKROBIOL. 1956, No. 10 (40-48)

In 22 monkeys - so-called 'healthy' bacterial excreters, which had not had an antecedent dysenteric illness - clinical and bacteriological investigations were carried out 1-3 times a week for a period of 2.5-12 months. In 18 of them symptoms of intestinal dysfunction (loose stools, often verging on the pathological; gaping of the anus; enlargement of the mesenteric glands etc.) were observed. The general condition of the animals (weight, temperature, activity, appetite) remained satisfactory. Rectoscopy in all the animals showed pathological changes in the mucous membrane of the large intestine. The sera of all the monkeys contained agglutinins to B. flexneri in titres of 1: 50 to 1: 1600. Twenty healthy monkeys and 35 persistent bacterial excreters were also subjected to rectoscopy. The appearances of catarrhal recto-sigmoiditis were seen in 30 of the latter group. Four to eight hours after subcutaneous injection of a vaccine prepared from a monkey strain of Flexner, com-

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pletely liquid stools occurred in all the bacterial excreters. This exacerbation of the dysenteric process continued in the majority of cases for 2-3 days. Similar exacerbation of the dysenteric process occurred in experimental measles infection, in pregnancy and in the post-natal period. In 17 monkeys, classed as healthy bacterial excreters, post-mortem examination showed morphological changes characteristic of dysentery. The results obtained show that, in bacterial dysentery, a prolonged 'healthy' carrier state does not exist; the condition is really a chronic dysenteric process.

Chakhava - Moscow

DZHIKIDZE, E.K.

Result of repeated infection of monkeys with Sonne dysentery.
Zhur mikrobiol.,epidem. i immun. 27 no.3:3-7 Mr '56. (MLRA 9:7)

1. Iz Sukhumskoy mediko-biologicheskoy stantsii AMN SSSR.
(DYSENTERY, BACILLARY, experimental,
repeated infect. of monkeys with Sonne dysentery (Rus))

DZHIKIDZE, E.K.; GVAZAVA, I.S.; KOVTARADZE, K.N.

Comparative study of various methods for treating experimental Sonne dysentery in monkeys [with summary in English]. Antibiotiki 2 no.6:20-27 N-D '57. (MIRA 11:2)

1. Mediko-Biologicheskaya stantsiya AMN SSSR (Sukhumi)
(DYSENTERY, BACILLARY, experimental,
antibiotics, comparison in monkeys (Rus))
(ANTIBIOTICS, effects,
on exper. bacillary dysentery in monkeys (Rus))